

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Masaya ARAKAWA
Title: IMAGE FORMING APPARATUS AND METHOD FOR DETECTING
THE COLOR INFORMATION AND POSITIONS OF DEVELOPING
UNITS
Appl. No.: Unassigned
Filing Date: 04/19/2004
Examiner: Unassigned
Art Unit: Unassigned

INFORMATION DISCLOSURE STATEMENT
UNDER 37 CFR §1.56

Mail Stop PATENT APPLICATION
Commissioner for Patents
PO Box 1450
Alexandria, Virginia 22313-1450

Sir:

Submitted herewith on Form PTO/SB/08 is a listing of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR §1.56. A copy of each listed document, except as noted below, is being submitted to comply with the provisions of 37 CFR §1.97 and §1.98.

The USPTO has waived the requirement under 37 CFR 1.98(a)(2)(i) to submit copies of U.S. patents and U.S. patent application publications when citing and submitting an Information Disclosure Statements in a patent application filed after June 30, 2003 and in an international application that has entered the national stage under 37 USC §371 after June 30, 2003. Accordingly, copies of these types of documents are not being supplied in connection with this application. Reference is being made to Pre-OG Notice from Office of Patent Legal Administration dated July 25, 2003, *Information Disclosure Statements May Be Filed Without Copies of U.S. Patents and Published Applications in Patent Applications filed after June 30, 2003.*

The submission of any document herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima facie* art reference against the claims of the present application.

TIMING OF THE DISCLOSURE

The listed documents are being submitted in compliance with 37 CFR §1.97(b), within three (3) months of the filing date of the application.

RELEVANCE OF EACH DOCUMENT

Document A1 discloses a system which includes a first connector means formed on each of the developer tanks, a second connector means formed on each of the mounting portions of the developing device, and a discrimination means for outputting at least one discrimination signal and judging whether or not the discrimination signal is inputted thereinto through at least one set of the first and second connector means.

Document A2 discloses a structure that provides the information of existence of protrusions to the CPU through a phototransistor. By detecting the existence of two protrusions, the identification information of four kinds of developing units can be provided.

Document A3 discloses a detection means for cartridge color that has at least two luminescent parts with different spectral characteristics, a light-receiving part which receives the light from each luminescent part in order to identify the spectral characteristics of each toner color, and a control part which distinguishes the color of a toner based on the variation of the luminous energy of the different spectral characteristics received by the above-mentioned light-receiving part.

Document A4 discloses technology which judges the color of an empty cartridge under certain density conditions ($d < A_h$) by detecting the density of the developing cartridge by the toner residual quantity monitor 13 and the density sensor 7 in a revolving-type color developing apparatus.

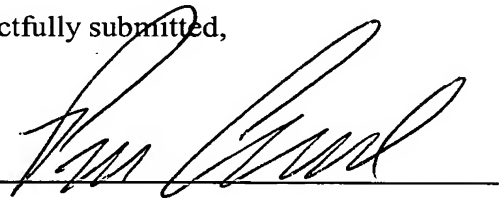
English translations of the foreign-language documents are not readily available. However, the absence of such translations does not relieve the PTO from its duty to consider the submitted foreign language documents (37 CFR §1.98 and MPEP §609). English language abstracts are provided herewith.

Applicant respectfully requests that any listed document be considered by the Examiner and be made of record in the present application and that an initialed copy of Form PTO/SB/08 be returned in accordance with MPEP §609.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 CFR §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741.

Respectfully submitted,

By



Date April 19, 2004

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| Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT Date Submitted: April 19, 2004 <i>(use as many sheets as necessary)</i> | | | | Complete if Known | |
| | | | | Application Number | Unassigned |
| | | | | Filing Date | 04/19/2004 |
| | | | | First Named Inventor | Masaya ARAKAWA |
| | | | | Group Art Unit | Unassigned |
| | | | | Examiner Name | Unassigned |
| Sheet | 1 | of | 1 | Attorney Docket Number | 047373-0142 |

| U.S. PATENT DOCUMENTS | | | | | | |
|-----------------------|-----------------------|----------------------|-----------------------------------|---|--|---|
| Examiner Initials* | Cite No. ¹ | U.S. Patent Document | | Name of Patentee or Applicant of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear |
| | | Number | Kind Code ² (if known) | | | |
| | A1 | 5,049,930 | | OKANO ET AL. | 09-17-1991 | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | | |
|--------------------------|-----------------------|-------------------------|---------------------|-----------------------------------|--|--|---|----------------|
| Examiner Initials* | Cite No. ¹ | Foreign Patent Document | | | Name of Patentee or Applicant of Cited Documents | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | | | | |
| | A2 | JP | 60-52878 | A | KONISHIROKU PHOTO IND. CO., LTD. | 03-26-1985 | | Abst. |
| | A3 | JP | 8-146701 | A | RICOH CO., LTD. | 06-07-1996 | | Abst. |
| | A4 | JP | 11-258901 | A | CANON INC. | 09-24-1999 | | Abst. |
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| NON PATENT LITERATURE DOCUMENTS | | | |
|---------------------------------|-----------------------|--|----------------|
| Examiner Initials* | Cite No. ¹ | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.) date, page(s), volume-issue number(s), publisher, city and/or country where published. | T ⁶ |
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| Examiner Signature | Date Considered |
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, PO Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, PO Box 1450, Alexandria, Virginia 22313-1450.